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6. An integrated circuit as claimed in claim 5 wherein the plurality of thermal sensors are positioned on the integrated circuit in accordance to at least one predetermined criteria.

7. An integrated circuit as claimed 6 wherein a predetermined criteria is sensitivity to thermal resistance.
- 5 8. An integrated circuit as claimed in claim 1 further comprising a processor and power management circuitry electrically coupled to the A-D converter, the processor for receiving the data value from the A-D converter, and providing feedback from the processor
10 to the power management circuitry.
9. An integrated circuit as claimed in claim 8 further comprising storage circuitry coupled between the A-D converter and the processor for storing the digital
15 value.
10. An integrated circuit as claimed in claim 8 further comprising communication circuitry coupled to the A-D converter for communicating the digital value to the
20 processor.
11. A method for managing an integrated circuit comprising the steps of:
collecting a data value at a location on an
25 integrated circuit wherein the data value has a predetermined functional relationship to the temperature at the location; and
converting the data value to a value
representative of the thermal environment of the
30 location on the integrated circuit.

12. A method for managing an integrated circuit, as
claimed in claim 11 further comprising the step of
comparing the data value to a known predetermined
5 value to determine problems associated with the
integrated circuit.
13. A method as claimed in claim 11 wherein said
collecting step comprises monitoring a thermal sensor
10 for providing the data value that is representative of
the temperature at the location.
14. A method for an integrated circuit, as claimed in
claim 11 further comprising the step of providing the
15 data value to a processor to provide feedback to the
integrated circuit wherein the purpose of the feedback
is to change a parameter of the integrated system in a
predetermined manner.
- 20 15. A method as claimed in claim 14 further comprising the
step of adjusting the power supplied to a section of
the integrated circuit at the location in a
predetermined manner in response to the feedback.
- 25 16. A method as claimed in claim 14 further comprising the
step of adjusting the temperature at the location on
the integrated circuit in a predetermined manner in
response to the feedback.

17. A method as claimed in claim 12 further comprising the step of determining the location of a defect in the integrated circuit at the location from comparing the data value to a known predetermined value.

17. A method as claimed in claim 12 further comprising the step of determining the location of a defect in the integrated circuit at the location from comparing the data value to a known predetermined value.